is not accumulated on the gilding, but is in the glaſs itſelf.

25. The gilding being varniſh'd over with turpentine varniſh, the varniſh tho' dry and hard, is burnt by the ſpark drawn thro' it, and gives a ſtrong ſmell and viſible ſmoke. And when the ſpark is drawn through paper, all round the hole made by it, the paper will be blacked by the ſmoke, which ſometimes penetrates ſeveral of the leaves. Part of the gilding torn off, is alſo found forcibly driven into the hole made in the paper by the ſtroke.

26. 'Tis amazing to obſerve in how ſmall a portion of glaſs a great electrical force may lie. A thin glaſs bubble, about an inch diameter, weighing only ſix grains, being half-filled with water, partly gilt on the outſide, and furniſh'd with a wire hook, gives, when electrified, as great a ſhock as a man can well bear. As the glaſs is thickeſt near the orifice, I ſuppoſe the lower half, which being gilt was electrified, and gave the ſhock, did not exceed two grains; for it appeared, when broke, much thinner than the upper half. --- If one of theſe thin bottles be electrified by the coating, and the ſpark taken out thro' the gilding, it will break the glaſs inwards at the ſame time that it breaks the gilding outwards.

27. And allowing (for the reaſons before given, § 8, 9, 10,) that there is no more electrical fire in a bottle after charging, than before, how great muſt be the quantity in this ſmall portion of glaſs! It ſeems as if it were of its very ſubſtance and eſſence. Perhaps if that due quantity of electrical fire ſo obſtinately retained by glaſs, could be ſeparated from it, it would no longer be glaſs; it might loſe its tranſparency, or its brittleneſs, or its elaſticity. --- Experiments may poſſibly be invented hereafter, to diſcover this.

27. We are ſurprized at the account given in Mr *Watſon*'s book, of a ſhock communicated through a great ſpace of dry ground, and ſuſpect there muſt be ſome metaline quality in the gravel of that ground; having found that ſimple dry earth, rammed in a glaſs tube, open at both ends, and a wire hook inſerted in the earth at each end, the earth and wires making part of a circle, would not conduct the leaſt perceptible ſhock, and indeed when one wire was electrify'd, the other hardly ſhowed any ſigns of its being in connection with it. --- Even a thoroughly wet pack-thread ſometimes fails of conducting a ſhock, tho' it otherwiſe conducts electricity very well. A dry cake of ice, or an icicle held between two in a circle, likewiſe prevents the ſhock; which one would not expect, as water conducts it ſo perfectly well. --- Gilding on a new book, though at firſt it conducts the ſhock extremely well, yet fails after ten or a dozen experiments, though it appears otherwiſe in all reſpects the ſame, which we cannot account for.

28. There is one experiment more which ſurprizes us, and is not hitherto ſatisfactorily accounted for; it is this. Place an iron ſhot on a glaſs ſtand, and let a ball of damp cork, ſuſpended by a ſilk thread, hang in contact with the ſhot

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